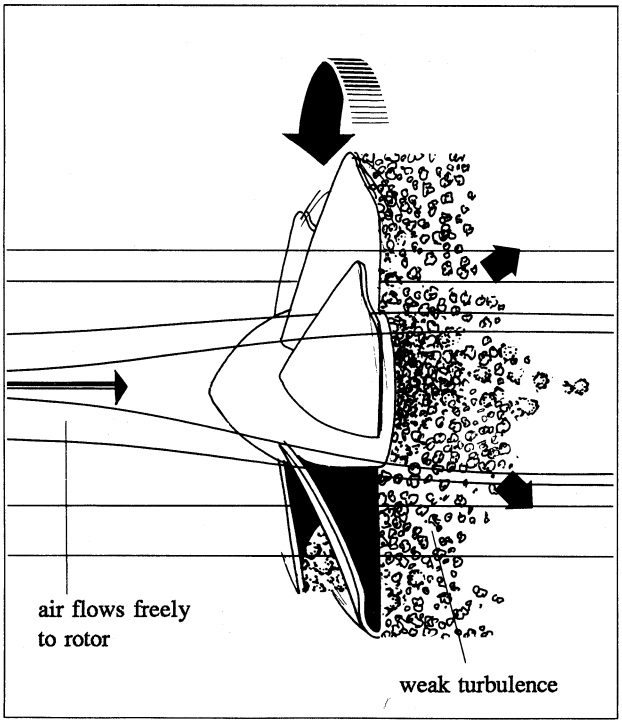
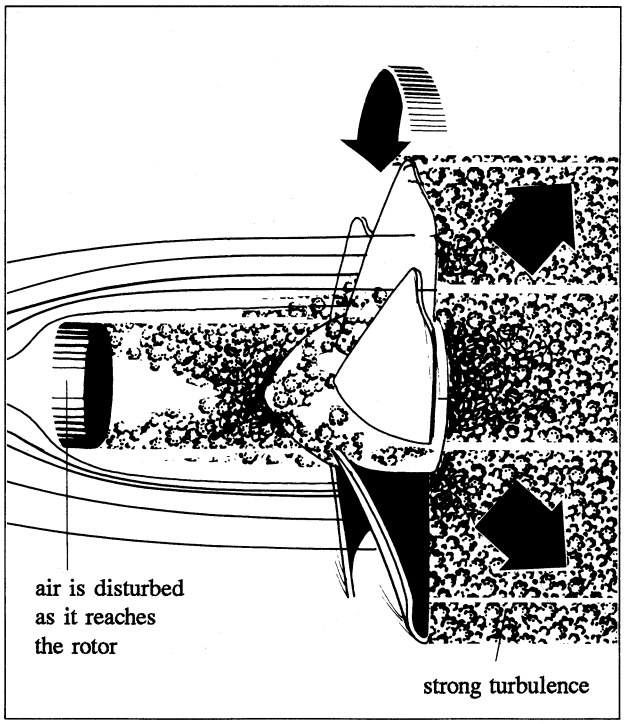
FANS MAKE LESS NOISE IF PLACED IN SMOOTH, UNDISTRUBED FLOW STREAMS

A fan produces turbulence in air, which causes noise. If turbulence is already present in the incoming air, the sound will be more intense. The same principle applies, for example, to propellers in water.

Principle





Example

In one case, the fan is located too close to a barrier, and in the other case too close to a sharp bend. The flow is disturbed, and the noise at the outlet is intense.

Control Measure

The control vanes are moved further from the fan so that the turbulence has time to die down. In the other case, the bend is made smoother, and the fan is moved away from the bend. Turning vanes could also be used.